

BMP #145 - Seeding

DESCRIPTION

Permanent Seeding means growing a long-term or permanent vegetative cover (plants) on disturbed areas or areas that need assistance in revegetation. The purpose of permanent seeding is to reduce erosion and sedimentation and to establish desirable competitive ground cover for wildlife habitat and ease of roadside maintenance. This practice uses prescribed perennial grasses, legumes and native shrubs or wild flowers that will hold the soils, reduce storm water runoff and act as a bio-filtering system on long term basis.

The guidelines given in this fact sheet for design, construction and maintenance can also be used to install temporary seeding on construction sites.

APPLICATIONS

Temporary seeding should be considered as slope protection and erosion control practice for construction sites. Permanent seeding should be considered for any disturbed area where all construction or maintenance activities have ceased or been finalized and is now ready for permanent vegetative cover. Typical areas subject to permanent vegetative cover are all areas disturbed by new construction, reconstruction, maintenance, materials source site and areas in need of revegetation.

The primary advantages of seeding are:






- It establishes good soil stabilization.
- It prevents soil erosion and sedimentation.
- It contains and filters storm water runoff.

Additional advantages specific to permanent seeding are:

- It provides wildlife ground cover and habitat.
- It competes with undesirable vegetation and noxious weeds.
- It provides aesthetic qualities.
- It reduces the cost of maintenance.

LIMITATIONS

Targeted Pollutants

-  Sediment
-  Phosphorus
-  Trace metals
-  Bacteria
-  Petroleum hydrocarbons

Physical Limits

Drainage area unlimited

Max slope 5%

Min bedrock depth 2 ft

Min water table 2 ft

SCS soil type ABCD

Freeze/Thaw fair

Drainage/Flood control no

Permanent vegetative ground cover will take several years before sufficient establishment takes place. Establishment will occur quicker in high precipitation areas, usually over 20 inches (500 mm), as opposed to the arid or semi-arid regions of the state. Permanent seeding should be conducted in conjunction with various forms of mulching, matting and annual grass (cereal grain) as a nurse crop.

Other factors that contribute to the success or failure of permanent seeding are:

- Seeding should be done at the proper time of year.
- Proper application of fertilizers as prescribed will contribute to the success of the seeding.
- Once seeded, the site should not be disturbed.
- Irrigation may have to be used in low precipitation area (arid/semi-arid) for establishment.

DESIGN PARAMETERS

Conduct all permanent seeding and fertilizing in accordance with local requirements. See Appendix F in this manual for additional guidelines.

CONSTRUCTION GUIDELINES

- Permanent seeding is the last phase of reclaiming any disturbed soils.

MAINTENANCE

- Inspect all seeded areas on a regular basis and after each major storm event to check for areas where corrective measures may have to be made.
- Indicate which areas need to be reseeded or where other remedial actions are necessary to assure establishment of permanent seeding.
- Continue monitoring of the site/area until permanent vegetation is established.